

EVOLUTION OF AN INDIGENOUS PLANNING SYSTEM

Town planning and urban design have existed in India from ancient times and there are elaborate treatises testifying to this fact. Reference has been made to them from time to time but they have largely been interpreted in superficial terms. The result has been the arid mechanical layouts that characterise most of our current development.

The traditional towns and cities of India have certain strong common characteristics. Sometimes based on geometric layouts as defined in the ancient classics, they have largely evolved and developed on an organic pattern of growth. In fact the form represents a fusion of the geometric framework with organic growth, and it is through the organic development that the sequence of eloquent townscape spaces have emerged linking and unifying the fabric as it evolved through the ages. These have found expression in various historic towns throughout the country. In scale they range from individual buildings to groups and clusters of buildings and also some time extend to the scale of large and complex urban spaces. Together they bear evidence of the richness of urban development through history in India.

Taking a selection of examples one would like to draw attention to this treasury of resources and inspiration that have largely remained ignored in relation to current developments in town planning and urban design.

Some of our forts and palaces are excellent examples of single building urban complexes. One of the most interesting of these is the palace at Datia. Built essentially as a solid square fortress with very few openings to the outside it presents on the inside a marvellous geometric organisation of space on several levels. The courts on different levels organised in relation to a strongly defined geometry are exquisite examples of a sophisticated system on the basis of which light and air may be brought into the inner reaches of an intense development without in any way compromising the basic needs of privacy. The richness of the resulting spatial structure with its fluid relationship of spaces on different levels is a direct expression of a totally inward looking plan form.

A similar richness and variety of spatial organisation is available in another single building complex – the fort at Amber near Jaipur. Here within the fort walls is a complex system of spaces which include a temple, the public and private spaces of audience for the Maharaja and the series of courts defining the private quarters of residence. All of these are organised around spacious courtyards providing a sequential relationship from part to part. But the most interesting part of the complex is the area that consists of the retainer's residences. Small in size and sandwiched to one side against the fort wall, these one and two storey units are excellent examples of closely packed residential development, each with their own courts and terraces at different levels.

The period of Mughal rule saw the development of beautiful gardens, palaces, forts, mosques and cities. Spread across the country from the Deccan to Kashmir and beyond, these urban complexes reached their high point of development under the rule of Akbar and Shahjehan. Akbar's palace complex at Fatehpur Sikri occupied for a relatively short period of time is the most significant complex of urban design that has survived from the Mughal period. Grand yet human in scale the series of inter linked courtyards that define a hierarchical relationship

culminating in the great mosque and the triumphal gateway (the Bulund Darwaza) constitute one of the most skilful and sophisticated exercises in urban design.

Shahjehan's contribution to architecture, town planning and urban design was the most extensive throughout the period of Mughal rule. Apart from the various individual buildings such as the Taj Mahal at Agra, the Jama Masjid at Delhi, and the Ana Sagar Pavilions at Ajmer, it is the larger complexes such as the groups of buildings within the Red Fort at Delhi, and within the Fort at Agra that testify to considerable urban design skill. The integration of the courts, gardens and pavilions have created some of the most memorable historic spaces.

Shahjehan's tour-de-force however was the city of Shahjehanabad of which the Red Fort, the Jama Masjid and the fabled Chandni Chowk or Moonlight Way formed an integral part. These major buildings along with the Fatehpuri Masjid on the axis of which the Chandni Chowk was aligned defined the basic axial and geometric structure of the city. Beyond this framework, the city developed on an organic basis and the rich tapestry of mohallas and katras emerged over time as an expression of the prevailing social order. The resulting spaces defining the sequence of pedestrian movement have built up a townscape of a high order. A townscape that however due to lack of maintenance and over intensive use, is no longer recognised and appreciated, and is fast falling apart. Despite its unfortunate current condition the walled city of Shahjehanabad is a unique example of town design. Outwardly cramped and congested it has in fact an organised network of semi-private and private courtyards that occupy approximately twenty five percent of the total space – part of an order that is more meaningful both in climatic and socio-cultural terms.

The city of Jaipur is another example of traditional town planning that has survived intact up to present times. Part of a pattern with the great towns and cities of Rajasthan, it is a sophisticated example of a planned grid layout imposed on the landscape. Following the tenets of a vastu-purusha mandala, the town has nine squares with the palace complex dominating the central heart of the city. Despite this rigid framework the organic development of the different segments over time created a lively and vibrant city unified by the pink colour that was mandatory for the facades of all its buildings. The spatial variety and richness of the palace complex is in itself a unique piece of urban design.

Rajasthani towns are essentially settlements in the desert and reflect very clearly the characteristics of an oasis. The Thar Desert except in parts is not quite the vast sand wastes that one imagines deserts to be. Nevertheless vegetation is sparse and the dry climate results in dust laden winds which scourge the area. Water is scarce, and lakes and natural reservoirs are few and far between. Towns in Rajasthan are placed far apart in the desert. Concentration is fostered and the towns form densely packed settlements turning their back on the desert. The closely spaced buildings and the network of narrow streets effectively shelter them from the worst of the elements, the sun, and the hot dust laden winds. An enclosed and sheltered environment in the desert is as much a psychological need as a physical one – a haven of refuge from the vast desert wastes.

This need for concentration, for huddling within the walls of the city was further accentuated by the requirements of defence. The isolated outposts in the desert needed to be guarded and protected. The fort and the city walls dominated the skyline of Rajasthani towns. From miles away the forts and the battlements appear on the horizon as symbols of impregnable cities.

This concentration in most of the Rajasthani towns has resulted in a unique sense of urbanity. No matter how small the town the feeling of enclosure is paramount. Climatological requirements have given form to the nature of development. Variation between day and night temperatures is considerable. Even during the day there is much difference between the temperatures in the shade and under the sun. It was essential therefore that as much cool air be trapped as possible within the development at night and retained during the day. The resulting form is a series of deep courts, where the cool air is retained at lower level and the sun does not penetrate very deep. Similarly the streets are narrow and winding with the buildings on either side much higher than the width of the street. The street itself being in shade most of the day, allows comfortable conditions for movement throughout the town. Further the winding development apart from the breakdown of the street into small visual units, also helps to enclose and retain the cool air with only a slight light induced draft suggesting a continuous flow of air during the day.

A significant aspect of Rajasthani planning is the sequence of spaces that characterise their towns. This in addition to the sense of urbanity is one of the most important lessons that can be learned from Rajasthan. The build up at each level establishes a clear relationship. In the same manner as the rooms around the central court of each house is related to it, the court of the house is in turn related to the street via the entrance or chabutra. The street is not a long indefinite space, but is broken down into small visually appreciable units. A bend in the road, a turn or a projecting house defines each unit. Moving from space to space is a pleasant experience, the scene continually changing as one moves from one part to another. Much of it has been conceived in terms of pedestrian movement and everything is scaled down to the speed at which one would move through the development on foot. The street spaces also change according to use. Every now and then an open space with its projecting platforms serve as a meeting place for the area. Where more intensive use and crowds are expected the street widens and becomes comparatively straight. Spaces become wider but only comparatively so, the sense of scale relating to the gradual development from one part to another is not lost.

While most Rajasthani towns reflect many of these basic characteristics, there is nonetheless a definite individuality about every town. This is defined by the architecture of each place. A peculiar treatment in each place helps to underline the continuity of spaces in each town. In Udaipur almost all the buildings are whitewashed, in Jaipur all are painted pink and in Jaisalmer every building is built of the yellow sandstone of the area. Although a certain overall order is established there is no regimentation. Each unit is different from the next, yet the basic harmony of relationship is such that infinite variation is possible within its limitations.

The history of urban development in India will not be complete without some mention of the temple cities of South India. The temples at Srirangam, Chidambaram and also the Meenakshi temple at Madurai are cities in microcosm. Within the concentric wall enclosures are a whole variety of gateways, halls and water tanks defining an intricate organisation of spaces. Within the outer walls are also a rich complex of dwelling units all forming part of the vast urban canvas.

It is only when one looks at the large numbers of historic urban spaces and complexes across the country that one becomes aware of the vast schism that exists between the urban culture that once conditioned development and the actual town planning and urban design achievements in India of more recent times. Somewhere the sequential chain of indigenous

town planning broke down with the decline of Mughal rule in India, and the pattern of planning as followed under British colonial rule took an entirely different course turning its back on most of what had gone on before. It is the colonial inheritance that still dominates our thinking in planning and urban design. Apart from the fact that it was basically an alien imposition, this was further complicated by the growing technological needs of the industrial revolution. The railways and the motor car in the hands of the civil engineer made demands on a scale and in a fashion that put an end to all thoughts of graceful urban spaces, pedestrian streets, and their part in the integrated fabric of the city. Instead of the roads being the arteries that fed the urban fabric they became vicious scalpels that cut across the city dividing it into a series of unrelated fragments.

Starting with the garrison towns and cantonments the British went on to develop the “civil lines” in all the major towns and cities. Inspired by Ebenezer Howard’s Garden City idea and coupled with the need to keep themselves well removed from the native quarters these civil lines became rambling grid layouts with isolated houses on vast areas of land. They had none of the closeness and security of the vernacular towns.

The surveyor’s layout dictated the straight roads and the houses were set well back in their own haven of privacy. With such layouts there could be no sense of enclosure or urban design and the city became a sprawl.

The climax of the Garden City movement in India was reached with the building of Lutyen’s plan for the city of New Delhi. It was a degenerated concept of the principles so clearly enunciated by Ebenezer Howard. Howard had sought a balance between town and country and a symbiotic relationship between the city and the surrounding farmland that it depended upon, but this was reduced in the Indian context to the picturesque suburban sprawls that characterised the British settlements. Lutyen’s plan for New Delhi provided two major urban complexes – the grand Central Vista dominated by the Secretariats and the Viceregal Lodge (now President’s Palace or Rashtrapati Bhawan) and the commercial centre of Connaught Place. Apart from these the city as such for all its splendid avenues and trees lacked any urban character and was aptly dubbed as an “overgrown village”.

Post Independence planning and urban design throughout India has taken as its model the “surveyor’s layout” and the transplanted European concept of the city beautiful as mistakenly interpreted from Ebenezer Howard’s garden city idea. As space standards became more stringent the same model was squeezed tighter and the same concept of front, rear and side setbacks was reduced to a state of meaninglessness in social and cultural terms. The whole concept had been reversed and where previously with narrow streets and close built houses designed around internal courtyards it had been possible to retain a strong sense of privacy within individual units, now with the European concept of outward looking houses even with street widths of two or three times that of the traditional lanes one had a sense of being on top of one another with little or no privacy within the dwelling units. This approach unfortunately permeates all aspects of planning today.

Architects and planners have had several opportunities to build complexes that could have defined a new trend in urban design in India. Most of them have sought inspiration from post war British, American and European examples. These have sometimes resulted in very pleasant developments, but have failed to evoke any strong emotional response in ethnic terms.

Many of the major projects executed in the last thirty years have been those sponsored or developed by the government agencies. Some of them have been built as part of the Master Plans prepared for the growth of major cities. The Delhi Master Plan which became law in 1962 envisaged the building of several major urban complexes within the city.

It is of interest at this point to draw attention to the fact that even in Europe at the turn of the century the well known Viennese planner Camillo Sitte had attempted to remind his colleagues that the planning and design of urban spaces and the location of major buildings consisted of recognising the basic close-knit fabric of development and the placing of important buildings and urban squares and spaces as an integral part of it. The concept of isolated high rise tower blocks or a series of separated multi-storeyed buildings is a direct offshoot of the Modern movement. As it gained momentum it developed a grammar of town design and urban development that consisted essentially of having a series of separate structures sometimes of varying heights, defining and delineating the urban spaces of the city. Coupled with this approach came the concept of areas or buildings zoned for specific uses only.

Post war town planning in Britain and Europe espoused this concept as a way out of the confused conditions created in their urban areas by the pressures of the Industrial Revolution. In the Indian context this had little or no validity as it merely served to cut across the existing framework of all traditional towns and cities, where a close link prevailed between dwelling units and the place of work - invariably a mixture of use even within the same building was common. Instead of rationalising the existing framework and recognising its merits and disadvantages, a totally new concept of single use zone planning has been introduced which apart from being unsuitable has been largely found to be unimplementable.

Although by and large few architects and planners outside government service have had the good fortune to obtain any sizeable urban design commissions, they have nevertheless been appointed as planners for several new educational campuses. These have been spread all over the country and this is an area where architects have had reasonable opportunity to build and control a total environment. The campus for the Indian Institute of Technology at Kanpur and the Indian Institute of Management at Bangalore are two notable attempts at creating unique integrated environments.

Apart from these few large scale design projects one must take note of the singular lack of creation of meaningful spaces in relation to the large areas occupied by housing in all our towns and cities. This is the fabric that keeps steadily growing, and constitutes the largest imposition on the environment. This has been in almost all instances uniformly dull and banal and is the direct result of the framework of controls imposed by our town planners. It is the framework itself that now needs urgent re-examination. Without a drastic overhaul of our set back regulations and three dimensional controls we cannot possibly expect the creation of any comprehensive urban structure.

Related to the subject of set backs and controls is also the need for urgent re-evaluation of the validity of high rise development in our context. There is no doubt that with the growing pressures of urbanisation greater intensification of development is inevitable. But it is also clearly established that considerably higher densities can be achieved with comparatively low rise structures. This is not possible without evolving a new framework of controls. A framework that could also build into it greater consideration for townscape and the development of a system of urban spaces. Consideration could also be given to the

establishment of an integrated pedestrian and bicycle network of movement that would extend over large areas without crossing any traffic roads. Such a network is an urgent requirement considering the fact that large numbers of our urban population cannot afford any other system of transport.

The development of an indigenous framework for urban design could in individual towns and cities attempt to give identification to local customs and characteristics suggesting deeper socio-economic and cultural roots. In this process we need to assess traditional social and cultural institutions and re-consider the validity of their re-expression in modern terms. The *katras*, the *mohallas* and the *chowks* that were the expression of the extended joint family system and clan relationships also fostered a strong sense of psychological and physical security. Some recent housing projects have attempted to recreate these values in current terms and these suggest new directions of interest. If the larger mass of housing that is now being implemented on a colossal scale by developers across the country were based on clear concepts of spatial organisation, pedestrian linkages etc., it could contribute in a big way to restore some measure of structure to the massive urban sprawl that characterises most of our cities.

To build this anew with the high pressures of urbanisation that we currently face constitutes a major professional challenge. A challenge that can only be met with the total commitment of available professional and management expertise to the task of urbanisation. The present influx of foreign planners being commissioned for several new townships makes one feel somewhat wary of what the future holds for us. A lot will depend upon the kind of direction that our own committed professionals can help to define.

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